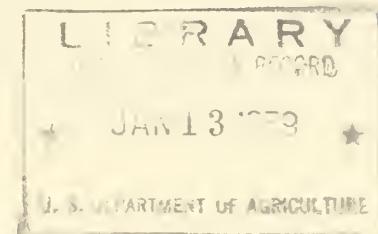


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UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Marketing Service
Cotton Division
Washington, D.C.



COTTON FIBER AND PROCESSING TEST RESULTS
CROP OF 1958

AMS-271
Supplement No. 8

December 5, 1958

COTTON FIBER AND PROCESSING TEST RESULTS

Average fiber quality and spinning performance of samples tested through November 28, 1958 show no major change from the previous report. Fiber properties continue to average the same as last year, with an average Micronaire value of 4.3, a maturity index of 78, and an average fiber strength value of 81,000 pounds per square inch. Both nonlint content and picker and card waste are considerably lower than last year, averaging 2.6 percent nonlint content and 7.6 percent picker and card waste as compared with 3.1 percent nonlint content and 9.5 percent picker and card waste in 1957. Strength of 22s yarn is averaging the same as last year at 115 pounds. Yarn appearance grades, however, show an average index of 98 - almost one-half grade below the 102 reported in 1957.

Results contained in this report include midseason selections from the Western areas and the High Plains of Texas; and late-season samples from Mississippi, Louisiana, and Tennessee.

Southeastern Area. Cottons from the Southeastern area continue to show improvement over 1957. An average strength of 22s yarn of 115 pounds is well above the average strength of 110 pounds reported for this area in 1957. Picker and card waste and nonlint content are averaging one percentage point below last year, reflecting the generally higher lint grades reported for this area this year.

South Central Area. Yarn strength and yarn appearance grades are lower this year in the South Central states as compared with the same period in 1957. Strength of 22s yarn averages 110 pounds in the South Central area this year as compared with an average yarn strength of 114 pounds last year. The average yarn appearance index of 95 for 1958 is 6 units below the average index of 101 reported last year.

Southwestern Area. Southwestern area cottons show about the same trends as those from the South Central states, being lower in yarn strength and yarn appearance grades than in 1957. These cottons are also lower in nonlint content and picker and card waste percentages than last year.

Western Area. Samples received from the Western states are now on about the same level as that observed last year in most respects. An average picker and card waste of 7.2 percent in the Western area shows some improvement over last year, being almost one percentage point below the average of 8.1 percent reported in 1957. Yarn appearance grades improved slightly from the previous report and are now on about the same level as last year.

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Table 1.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 12-1/2 pounds per hour and a twist multiplier of 4.40, crop of 1958

Variety	: Blightmaster:	Gregg	: Paymaster
State	: Texas	Texas	: Texas
Market area	: Ropesville	Plainview	: Aiken
Percentage of variety at gin	: 100	80	: 100
Period of harvest	: Midseason	Midseason	: Midseason
RAW COTTON QUALITY			
Classification (official standards):			
Grade-----designation:	M	: IM+	: Mltsp
Staple length-----inches:	1	: 15/16	: 15/16
Fiber length (Fibrograph):			
Upper half mean-----inches:	1.00	: .94	: .92
Uniformity-----ratio:	76	: 83	: 76
Fiber fineness and maturity:			
Micronaire-----reading 1/:	3.9	: 4.0	: 3.6
Fineness (Causticaire)---ug.inch 2/:	4.1	: 4.2	: 3.6
Maturity (")-----index:	75	: 75	: 74
Fiber tensile strength (Pressley):			
Zero gauge-----1,000 p.s.i.:	79	: 78	: 76
" " -----grams per tex 3/:	39.1	: 38.6	: 37.6
1/8" " " " " " :	19.7	: 22.6	: 20.1
Nonlint content: 4/			
Visible waste-----percent:	1.3	: 2.2	: 1.4
Invisible waste-----" :	1.2	: 1.3	: 2.0
Total nonlint content-----" :	2.5	: 3.5	: 3.4
Color of raw cotton: 5/			
Reflectance-----Rd:	76.4	: 73.6	: 70.6
Yellowness-----+b:	8.0	: 7.3	: 9.5
Sugar content-----percent:	0.2	: 0.1	: 0.2
Acid-alkaline value-----pH units 6/:	8.4	: 7.5	: 7.7
PROCESSING RESULTS			
Manufacturing waste:			
Picker and card-----percent:	7.4	: 8.2	: 8.4
Neps-----per 100 sq. in. of card web:	15	: 10	: 18
Yarn skein strength:			
8s (73.8 tex)-----pounds:	334	: 365	: 313
22s (26.8 ")-----" :	102	: 111	: 98
Average break factor-----7/:	2458	: 2681	: 2330
Yarn appearance:			
8s (73.8 tex)-----grade:	C+	: C+	: C+
22s (26.8 ")-----" :	C	: C+	: C
Average yarn appearance---index 8/:	95	: 100	: 95

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For footnotes see back page.

Table 1.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 12-1/2 pounds per hour and a twist multiplier of 4.40, crop of 1958--Continued

Variety	:	Paymaster	:	Western Stormproof
State	:	Texas	:	Oklahoma
Market area	:	Olton	:	Erick
Percentabe of variety at gin	:	100	:	80
Period of harvest	:	Midseason	:	Late
RAW COTTON QUALITY	:		:	
Classification (official standards)	:		:	
Grade-----designation	:	SLM	:	M
Staple length-----inches	:	31/32	:	15/16
Fiber length (Fibrograph):	:		:	
Upper half mean-----inches	:	.91	:	.93
Uniformity-----ratio	:	78	:	81
Fiber fineness and maturity:	:		:	
Micronaire-----reading <u>1/</u>	:	3.9	:	4.8
Fineness (Causticaire)---ug/inch <u>2/</u>	:	3.9	:	4.8
Maturity (")-----index	:	77	:	80
Fiber tensile strength (Pressley):	:		:	
Zero gauge-----1,000 p.s.i.	:	71	:	82
" " -----grams per tex <u>3/</u>	:	35.1	:	40.6
1/8" " " " " :	:	19.8	:	19.5
Nonlint content: <u>4/</u>	:		:	
Visible waste-----percent	:	1.5	:	1.0
Invisible waste-----"	:	1.4	:	1.4
Total nonlint content-----"	:	2.9	:	2.4
Color of raw cotton: <u>5/</u>	:		:	
Reflectance-----Rd	:	72.7	:	73.4
Yellowness-----+b	:	7.7	:	9.2
Sugar content-----percent	:	0.2	:	0.2
Acid-alkaline value-----pH units <u>6/</u>	:	8.0	:	7.3
PRCCESSING RESULTS	:		:	
Manufacturing waste:	:		:	
Picker and card-----percent	:	6.4	:	8.4
Neps-----per 100 sq. in. of card web	:	23	:	8
Yarn skein strength:	:		:	
8s (73.8 tex)-----pounds	:	328	:	315
22s (26.8 ")-----"	:	99	:	98
Average break factor----- <u>7/</u>	:	2401	:	2338
Yarn appearance:	:		:	
8s (73.8 tex)-----grade	:	C+	:	C+
22s (26.8 ")-----"	:	C	:	C+
Average yarn appearance-----index <u>8/</u>	:	95	:	100

For footnotes see back page.

Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 9-1/2 pounds per hour and a twist multiplier of 4.00, crop of 1958

Variety	:	Acala 4-42	:	Coker 100 W
State	:	California	:	South Carolina
Market area	:	Bakersfield	:	Shafter
Percentage of variety at gin	:	90	:	100
Period of harvest	:	Late	:	Late
	:		:	Midseason
RAW COTTON QUALITY	:		:	
Classification (official standards):	:		:	
Grade-----designation:	M	:	M	SIM
Staple length-----inches:	1-1/32	:	1-1/32	1-1/32
Fiber length (Fibrograph):	:		:	
Upper half mean-----inches:	1.04	:	1.04	1.05
Uniformity-----ratio:	79	:	78	85
Fiber fineness and maturity:	:		:	
Micronaire-----reading 1/:	4.6	:	4.4	4.0
Fineness (Causticaire)---ug/inch 2/:	4.3	:	4.2	4.1
Maturity (")-----index:	81	:	80	78
Fiber tensile strength (Pressley):	:		:	
Zero gauge-----1,000 p.s.i.:	87	:	88	78
" " -----grams per tex 3/:	43.1	:	43.6	38.4
1/8" " " " " :	23.7	:	23.7	22.6
Nonlint content: 4/	:		:	
Visible waste-----percent:	0.9	:	1.1	2.2
Invisible waste-----" :	0.9	:	1.1	0.7
Total nonlint content-----" :	1.8	:	2.2	2.9
Color of raw cotton: 5/	:		:	
Reflectance-----Rd:	78.0	:	78.5	75.0
Yellowness-----+b:	7.5	:	7.7	8.5
Sugar content-----percent:	0.2	:	0.2	0.1
Acid-alkaline value-----pH units 6/:	7.2	:	7.2	7.8
PROCESSING RESULTS	:		:	
Manufacturing waste:	:		:	
Picker and card-----percent:	6.7	:	6.5	7.5
Neps-----per 100 sq. in. of card web:	14	:	6	12
Yarn skein strength:	:		:	
22s (26.8 tex)-----pounds:	126	:	132	124
50s (11.8 ")-----" :	44	:	46	44
Average break factor-----7/:	2486	:	2602	2464
Yarn appearance:	:		:	
22s (26.8 tex)-----grade:	C+	:	B	C+
50s (11.8 ")-----" :	C	:	C+	C+
Average yarn appearance---index 8/:	95	:	105	100

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For footnotes see back page.

Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 9-1/2 pounds per hour and a twist multiplier of 4.00, crop of 1958--Continued

Variety	Deltapine 15			
State	Alabama	California	Louisiana	
Market area	Tuscumbia	Brawley	Bonita	Shreveport
Percentage of variety at gin	100	100	93	100
Period of harvest	Late	Midseason	Late	Late
RAW COTTON QUALITY				
Classification (official standards):				
Grade-----designation:	M	SIM	M	M
Staple length-----inches:	1-1/16	1-1/32	1-1/16	1-1/16
Fiber length (Fibrograph):				
Upper half mean-----inches:	1.06	1.04	1.08	1.09
Uniformity-----ratio:	79	74	77	76
Fiber fineness and maturity:				
Micronaire-----reading 1/:	4.2	4.8	4.2	4.1
Fineness (Causticaire)---ug/inch 2/:	4.3	4.6	4.4	4.0
Maturity (")-----index:	78	82	77	79
Fiber tensile strength (Pressley):				
Zero gauge-----1,000 p.s.i.:	77	86	76	79
" " -----grams per tex 3/:	38.1	42.6	37.6	39.1
1/8" " " " " :	21.1	22.8	21.5	22.4
Nonlint content: 4/				
Visible waste-----percent:	1.7	2.7	1.1	1.3
Invisible waste-----" :	0.3	1.0	0.8	1.3
Total nonlint content-----" :	2.0	3.7	1.9	2.6
Color of raw cotton: 5/				
Reflectance-----Rd:	75.6	76.8	74.6	76.5
Yellowness-----+b:	8.6	7.9	8.3	7.6
Sugar content-----percent:	0.2	0.2	0.1	0.0
Acid-alkaline value-----pH units 6/:	6.9	6.8	7.3	6.8
PROCESSING RESULTS				
Manufacturing waste:				
Picker and card-----percent:	5.9	7.9	6.3	6.5
Neps-----per 100 sq. in. of card web:	21	7	9	18
Yarn skein strength:				
22s (26.8 tex)-----pounds:	120	115	115	119
50s (11.8 ")-----" :	42	39	39	42
Average break factor-----7/:	2370	2240	2240	2359
Yarn appearance:				
22s (26.8 tex)-----grade:	C+	C+	C+	C+
50s (11.8 ")-----" :	C+	D+	C	D+
Average yarn appearance---index 8/:	100	90	95	90

Continued on page 7

Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 9-1/2 pounds per hour and a twist multiplier of 4.00, crop of 1958--Continued

Variety	Deltapine 15			
State	Louisiana		Mississippi	
Market area	Waterproof	Grenada	Senatobia	Woodland
Percentage of variety at gin	94	90	95	98
Period of harvest	Late	Late	Late	Late
RAW COTTON QUALITY				
Classification (official standards):				
Grade-----designation:	SIM	SIM	M	SIM
Staple length-----inches:	1-1/16	1-1/16	1-1/16	1-1/16
Fiber length (Fibrograph):				
Upper half mean-----inches:	1.08	1.08	1.09	1.04
Uniformity-----ratio:	78	79	77	79
Fiber fineness and maturity:				
Micronaire-----reading 1/:	4.6	4.4	4.0	4.4
Fineness (Causticaire)---ug/inch 2/:	4.5	4.6	4.1	4.5
Maturity (")-----index:	81	77	77	78
Fiber tensile strength (Pressley):				
Zero gauge-----1,000 p.s.i.:	87	79	80	78
" " -----grams per tex 3/:	43.1	39.1	39.6	38.6
1/8" " " " " :	23.7	20.6	21.7	20.8
Nonlint content: 4/				
Visible waste-----percent:	0.9	1.7	1.2	1.3
Invisible waste-----" :	0.9	1.4	1.2	1.4
Total nonlint content-----" :	1.8	3.1	2.4	2.7
Color of raw cotton: 5/				
Reflectance-----Rd:	72.5	75.6	77.5	74.5
Yellowness-----+b:	7.1	7.8	8.2	7.6
Sugar content-----percent:	0.2	0.1	0.1	0.2
Acid-alkaline value-----pH units 6/:	7.2	7.0	7.1	7.6
PROCESSING RESULTS				
Manufacturing waste:				
Picker and card-----percent:	6.7	7.7	7.1	7.3
Neps-----per 100 sq. in. of card web:	14	6	7	7
Yarn skein strength:				
22s (26.8 tex)-----pounds:	126	117	116	114
50s (11.8 ")-----" :	44	40	41	39
Average break factor-----7/:	2486	2287	2301	2229
Yarn appearance:				
22s (26.8 tex)-----grade:	C+	C+	C+	C+
50s (11.8 ")-----" :	C	C+	C	C+
Average yarn appearance---index 8/:	95	100	95	100

For footnotes see back page.

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Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton by state, market ares, and period of harvest, processed at a card production rate of 9-1/2 pounds per hour and a twist multiplier of 4.00, crop of 1958--Continued

Variety	Deltapine 15			Deltapine-TPSA	
State	Missouri	Oklahoma	Texas	Texas	
Market area	Hayti	Idabell	Texarkana	Bryan	
Percentage of variety at gin	75	98	90	100	
Period of harvest	Late	Midseason	Midseason	Late	
RAW COTTON QUALITY					
Classification (official standards):					
Grade-----designation:	M	SIM	M	IM	
Staple length-----inches:	1-1/16	1-1/16	1-3/32	1	
Fiber length (Fibrograph):					
Upper half mean-----inches:	1.05	1.09	1.11	1.03	
Uniformity-----ratio:	75	76	79	75	
Fiber fineness and maturity:					
Micronaire-----reading <u>1/</u> :	3.6	4.4	4.6	4.3	
Fineness (Causticaire)---ug/inch <u>2/</u> :	3.7	4.3	4.7	4.4	
Maturity (")-----index:	75	81	79	78	
Fiber tensile strength (Pressley):					
Zero gauge-----1,000 p.s.i.:	78	79	77	77	
" " -----grams per tex <u>3/</u> :	38.6	39.1	38.1	38.1	
1/8" " " " " :	20.5	21.2	20.1	19.6	
Nonlint content: <u>4/</u>					
Visible waste-----percent:	1.0	2.0	1.4	2.4	
Invisible waste-----" :	0.9	1.2	1.2	1.1	
Total nonlint content-----" :	1.9	3.2	2.6	3.5	
Color of raw cotton: <u>5/</u>					
Reflectance-----Rd:	77.7	76.3	76.7	72.0	
Yellowness-----+b:	8.0	8.1	8.0	7.6	
Sugar content-----percent:	0.2	0.0	0.0	0.0	
Acid-alkaline value-----pH units <u>6/</u> :	6.8	8.3	7.8	8.4	
PROCESSING RESULTS					
Manufacturing waste:					
Picker and card-----percent:	5.9	7.7	7.3	9.4	
Neps-----per 100 sq. in. of card web:	13	7	7	15	
Yarn skein strength:					
22s (26.8 tex)-----pounds:	120	116	114	102	
50s (11.8 ")-----" :	42	39	39	36	
Average break factor----- <u>7/</u> :	2370	2251	2229	2022	
Yarn appearance:					
22s (26.8 tex)-----grade:	C	B	C+	C+	
50s (11.8 ")-----" :	D+	C+	C	D	
Average yarn appearance-----index <u>8/</u> :	85	105	95	85	

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For footnotes see back page.

Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 9-1/2 pounds per hour and a twist multiplier of 4.00, crop of 1958--Continued

Variety	Deltapine Fox		Lankart	
State	Missouri		Oklahoma	Texas
Market area	Essex		Hinton	Minco
Percentage of variety at gin	96		95	90
Period of harvest	Late		Late	Late
				Midseason
RAW COTTON QUALITY				
Classification (official standards):				
Grade-----designation:	SIM		SMLtsp	M
Staple length-----inches:	1-1/16		15/16	1
Fiber length (Fibrograph):				
Upper half mean-----inches:	1.04		.93	1.00
Uniformity-----ratio:	74		77	80
Fiber fineness and maturity:				
Micronaire-----reading 1/:	3.8		4.5	4.8
Fineness (Causticaire)---ug.inch 2/:	3.8		5.1	5.0
Maturity (")-----index:	76		76	80
Fiber tensile strength (Pressley):				
Zero gauge-----1,000 p.s.i.:	77		79	80
" " -----grams per tex 3/:	38.1		39.1	39.6
1/8" " " " " :	20.8		19.2	20.5
Nonlint content: 4/				
Visible waste-----percent:	2.2		1.5	1.1
Invisible waste-----" :	0.9		1.0	0.8
Total nonlint content-----" :	3.1		2.5	1.9
Color of raw cotton: 5/				
Reflectance-----Rd:	75.6		75.5	76.3
Yellowness-----+b:	7.3		8.0	8.9
Sugar content-----percent:	0.3		0.3	0.2
Acid-alkaline value-----pH units 6/:	6.4		6.5	7.2
PROCESSING RESULTS				
Manufacturing waste:				
Picker and card-----percent:	7.8		8.5	7.0
Neps-----per 100 sq. in. of card web:	14		8	4
Yarn skein strength:				
22s (26.8 tex)-----pounds:	115		98	110
50s (11.8 ")-----" :	39		32	37
Average break factor-----7/:	2240		1878	2135
Yarn appearance:				
22s (26.8 tex)-----grade:	C		C+	B
50s (11.8 ")-----" :	D+		D+	C+
Average yarn appearance-----index 8/:	85		90	105

Continued on page 10

Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 9-1/2 pounds per hour and a twist multiplier of 4.00, crop of 1958--Continued

Variety	Lankart		
State	Texas		
Market area	Cooper	Lubbock	Waxahachie
Percentage of variety at gin	85	90	90
Period of harvest	Late	Midseason	Late
RAW COTTON QUALITY			
Classification (official standards):			
Grade-----designation:	Mltsp	SLM	SIMltsp
Staple length-----inches:	15/16	1	15/16
Fiber length (Fibrograph):			
Upper half mean-----inches:	.93	.99	.94
Uniformity-----ratio:	80	77	77
Fiber fineness and maturity:			
Micronaire-----reading <u>1</u> /:	5.0	4.5	4.7
Fineness (Causticaire)---ug/inch <u>2</u> /:	5.3	4.5	5.1
Maturity (")-----index:	79	80	78
Fiber tensile strength (Pressley):			
Zero gauge-----1,000 p.s.i.:	82	74	79
" " -----grams per tex <u>3</u> /:	40.6	36.6	39.1
1/8" " " " " :	19.8	19.5	19.4
Nonlint content: <u>4</u> /			
Visible waste-----percent:	1.6	1.6	1.8
Invisible waste-----" :	1.3	1.3	1.9
Total nonlint content-----" :	2.9	2.9	3.7
Color of raw cotton: <u>5</u> /			
Reflectance-----Rd:	71.5	73.4	68.1
Yellowness-----+b:	9.3	7.8	9.5
Sugar content-----percent:	0.1	0.3	0.0
Acid-alkaline value-----pH units <u>6</u> /:	7.0	7.3	7.8
PROCESSING RESULTS			
Manufacturing waste:			
Picker and card-----percent:	8.9	7.2	10.8
Neps-----per 100 sq. in. of card web:	7	12	7
Yarn skein strength:			
22s (26.8 tex)-----pounds:	94	96	88
50s (11.8 ")-----" :	30	33	28
Average break factor----- <u>7</u> /:	1734	1881	1668
Yarn appearance:			
22s (26.8 tex)-----grade:	C+	C	C+
50s (11.8 ")-----" :	D+	D	D+
Average yarn appearance-----index <u>8</u> /:	90	80	90

Continued on page 11

Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 9-1/2 pounds per hour and a twist multiplier of 4.00, crop of 1958--Continued

Variety	Lankart-611		Northern Star	
State	Texas		Texas	
Market area	Idalou	Memphis	O'Brien	Silverton
Percentage of variety at gin	100	90	90	80
Period of harvest	Midseason	Midseason	Late	Midseason
RAW COTTON QUALITY				
Classification (official standards):				
Grade-----designation:	SIM	SMLtsp	SIM	SIM
Staple length-----inches:	1	15/16	15/16	31/32
Fiber length (Fibrograph):				
Upper half mean-----inches:	1.00	.92	.96	.97
Uniformity-----ratio:	76	77	78	78
Fiber fineness and maturity:				
Micronaire-----reading 1/:	3.8	4.4	4.6	3.7
Fineness (Causticaire)---ug/inch 2/:	3.9	4.4	4.9	4.0
Maturity (")-----index:	75	79	78	73
Fiber tensile strength (Pressley):				
Zero gauge-----1,000 p.s.i.:	80	78	81	78
" " -----grams per tex 3/:	39.6	38.6	40.1	38.6
1/8" " " " " :	20.5	19.7	20.4	20.1
Nonlint content: 4/				
Visible waste-----percent:	1.2	1.1	1.5	1.6
Invisible waste-----" :	1.4	1.5	1.6	2.2
Total nonlint content-----" :	2.6	2.6	3.1	3.8
Color of raw cotton: 5/				
Reflectance-----Rd:	74.3	76.5	74.6	76.3
Yellowness-----+b:	7.9	9.1	8.9	8.0
Sugar content-----percent:	0.3	0.2	0.0	0.3
Acid-alkaline value-----pH units 6/:	7.3	7.3	7.5	7.4
PROCESSING RESULTS				
Manufacturing waste:				
Picker and card-----percent:	7.5	8.2	8.7	8.7
Neps-----per 100 sq. in. of card web:	8	7	11	12
Yarn skein strength:				
22s (26.8 tex)-----pounds:	106	99	100	107
50s (11.8 ")-----" :	36	32	33	36
Average break factor-----7/:	2066	1889	1925	2077
Yarn appearance:				
22s (26.8 tex)-----grade:	C	C+	C	C+
50s (11.8 ")-----" :	D+	D+	D+	D+
Average yarn appearance-----index 8/:	85	90	85	90

For footnotes see back page.

Table 3.--Results of classification, fiber tests, and carded and combed (in parentheses) yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 6-1/2 pounds per hour and a twist multiplier of 3.80, crop of 1958

Variety	Acala 1517C			
State	Arizona	New Mexico		
Market area	Bowie	Deming	Garfield	L.Arthur
Percentage of variety at gin	100	100	100	90
Period of harvest	Midseason	Midseason	Midseason	Midseason
RAW COTTON QUALITY				
Classification (official standards):				
Grade-----designation:	SM	M	M	M
Staple length-----inches:	1-5/32	1-1/8	1-1/8	1-3/32
Fiber length (Fibrograph):				
Upper half mean-----inches:	1.15	1.15	1.12	1.11
Uniformity-----ratio:	81	81	79	77
Fiber fineness and maturity:				
Micronaire-----reading <u>1</u> /:	3.8	3.6	3.4	3.9
Fineness (Causticaire)---ug/inch <u>2</u> /:	3.8	3.5	3.4	4.0
Maturity (")-----index:	77	76	75	76
Fiber tensile strength (Pressley):				
Zero gauge-----1,000 p.s.i.:	82	83	83	85
" " -----grams per tex <u>3</u> /:	40.6	40.9	41.0	41.9
1/8" " " " " :	24.5	24.6	25.4	24.1
Nonlint content: <u>4</u> /				
Visible waste-----percent:	0.7	0.9	1.2	1.4
Invisible waste-----" :	0.9	0.6	0.7	0.9
Total nonlint content-----" :	1.6	1.5	1.9	2.3
Color of raw cotton: <u>5</u> /				
Reflectance-----Rd:	78.0	79.3	79.3	76.0
Yellowness-----+b:	8.1	7.3	7.0	6.8
Sugar content-----percent:	0.2	0.3	0.1	0.1
Acid-alkaline value-----pH units <u>6</u> /:	6.7	6.9	7.6	8.5
PROCESSING RESULTS				
Manufacturing waste:				
Picker and card-----percent:	6.7	7.3	7.6	7.2
Comber-----" :	12.6	12.6	13.1	13.1
Neps-----per 100 sq. in. of card web:	26	22	27	19
Yarn skein strength:				
22s (26.8 tex)-----pounds:	133(142)	136(148)	136(149)	133(142)
50s (11.8 ")-----" :	47(51)	49(52)	48(52)	46(50)
Average break factor----- <u>7</u> /:	2638(2837)	2721(2928)	2696(2939)	2613(2812)
Yarn appearance:				
22s (26.8 tex)-----grade:	C (C+)	C+(C+)	C+(C+)	C+(B)
50s (11.8 ")-----" :	C (C+)	C+(C+)	C (C+)	C+(C+)
Average yarn appearance-----index <u>8</u> /:	90(100)	100(100)	95(100)	100(105)

Continued on page 13

Table 3.--Results of classification, fiber tests, and carded and combed (in parentheses) yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 6-1/2 pounds per hour and a twist multiplier of 3.80, crop of 1958--Continued

Variety	Acala 1517C		Acala 1517BR	
State	N. Mexico		Texas	
Market area	Loving		Canutillo	
Percentage of variety at gin	92	100	70	99
Period of harvest	Midseason	Midseason	Midseason	Midseason
RAW COTTON QUALITY				
Classification (official standards):				
Grade-----designation:	M	M	SIM	M
Staple length-----inches:	1-5/32	1-1/8	1-3/32	1-1/8
Fiber length (Fibrograph):				
Upper half mean-----inches:	1.12	1.10	1.10	1.09
Uniformity-----ratio:	79	76	79	77
Fiber fineness and maturity:				
Micronaire-----reading <u>1</u> /:	4.0	3.8	4.0	4.0
Fineness (Causticaire)---ug/inch <u>2</u> /:	4.1	3.8	4.1	3.9
Maturity (")-----index:	76	77	76	78
Fiber tensile strength (Pressley):				
Zero gauge-----1,000 p.s.i.:	88	89	85	84
" " -----grams per tex <u>3</u> /:	43.3	44.0	42.1	41.7
1/8" " -----" " " :	24.5	25.2	23.5	23.7
Nonlint content: <u>4</u> /				
Visible waste-----percent:	1.2	1.0	1.4	1.0
Invisible waste-----" :	0.7	1.3	0.7	0.8
Total nonlint content-----" :	1.9	2.3	2.1	1.8
Color of raw cotton: <u>5</u> /				
Reflectance-----Rd:	75.5	75.7	73.5	77.4
Yellowness-----+b:	7.3	8.1	7.9	7.9
Sugar content-----percent:	0.0	0.1	0.1	0.1
Acid-alkaline value-----pH units <u>6</u> /:	8.7	7.0	7.7	8.2
PROCESSING RESULTS				
Manufacturing waste:				
Picker and card-----percent:	6.6	7.2	7.4	7.6
Comber-----" :	13.6	15.0	13.9	14.8
Neps-----per 100 sq. in. of card web:	22	30	24	22
Yarn skein strength:				
22s (26.8 tex)-----pounds:	133(143):	133(147):	130(140):	128(140)
50s (11.8 ")-----" :	47(51):	47(51):	46(50):	46(49)
Average break factor----- <u>7</u> /:	2638(2848):	2638(2892):	2580(2790):	2558(2765)
Yarn appearance:				
22s (26.8 tex)-----grade:	C+(B)	C+(C+)	C+(C+)	B (B)
50s (11.8 ")-----" :	C (C+)	C (C)	C (C+)	C (C+)
Average yarn appearance-----index <u>8</u> /:	95(105)	95(95)	95(100)	100(105)

Continued on page 14

Table 3.--Results of classification, fiber tests, and carded and combed (in parentheses) yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 6-1/2 pounds per hour and a twist multiplier of 3.80, crop of 1958--Continued

Variety	: Acala 4-42	: Coker 100 W	: Delfos 9169
State	: California	: North Carolina	: Missouri
Market area	: Fresno	: Shelby	: Hornersville
Percentage of variety at gin	: 100	: 100	: 90
Period of harvest	: Late	: Late	: Late
RAW COTTON QUALITY			
Classification (official standards):			
Grade-----designation:	SIM+	SIM	SIM
Staple length-----inches:	1-1/32	1-1/16	1-1/16
Fiber length (Fibrograph):			
Upper half mean-----inches:	1.05	1.03	1.07
Uniformity-----ratio:	77	81	73
Fiber fineness and maturity:			
Micronaire-----reading <u>1/</u> :	3.8	4.1	3.4
Fineness (Causticaire)---ug/inch <u>2/</u> :	3.9	4.1	3.6
Maturity (")-----index:	76	78	70
Fiber tensile strength (Pressley):			
Zero gauge-----1,000 p.s.i.:	85	77	76
" " -----grams per tex <u>3/</u> :	42.3	38.1	37.4
1/8" " " " " :	24.3	21.7	21.1
Nonlint content: <u>4/</u>			
Visible waste-----percent:	2.6	2.2	2.3
Invisible waste-----" :	0.7	0.8	1.0
Total nonlint content-----" :	3.3	3.0	3.3
Color of raw cotton: <u>5/</u>			
Reflectance-----Rd:	76.5	76.3	71.0
Yellowness-----+b:	7.5	8.6	7.3
Sugar content-----percent:	0.3	0.2	0.3
Acid-alkaline value-----pH units <u>6/</u> :	6.3	6.6	6.4
PROCESSING RESULTS			
Manufacturing waste:			
Picker and card-----percent:	8.1	9.1	9.5
Comber-----" :	12.9	14.8	16.1
Neps-----per 100 sq. in. of card web:	25	13	44
Yarn skein strength:			
22s (26.8 tex)-----pounds:	134(147)	120(129)	113(125)
50s (11.8 ")-----" :	48(52)	41(45)	39(43)
Average break factor----- <u>7/</u> :	2674(2917)	2345(2544)	2218(2450)
Yarn appearance:			
22s (26.8 tex)-----grade:	C (C+)	B (B)	D+(C)
50s (11.8 ")-----" :	C (C)	C+(B)	D (D+)
Average yarn appearance-----index <u>8/</u> :	90(95)	105(110)	75(85)

For footnotes see back page.

Table 4.--Results of classification, fiber tests, and combed yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 4-1/2 pounds per hour and a twist multiplier of 3.60, crop of 1958

Variety	Pima S-1		
State	Arizona		Texas
Market area	Stanfield	Peoria	Fabens
Percentage of variety at gin	100	100	95
Period of harvest	Midseason	Midseason	Early
RAW COTTON QUALITY			
Classification (official standards):			
Grade-----designation:	3	3	3
Staple length-----inches:	1-7/16	1-3/8	1-7/16
Fiber length (array):			
Upper quartile-----inches:	1.42	1.39	1.37
Coefficient of variability--percent:	30	29	30
Fiber fineness and maturity:			
Micronaire-----reading <u>1</u> /:	4.0	3.8	3.6
Fineness (Causticaire)---ug/inch <u>2</u> /:	3.6	3.4	3.3
Maturity { ")-----index:	80	79	78
Fiber tensile strength (Pressley):			
Zero gauge-----1,000 p.s.i.:	101	101	97
" " -----grams per tex <u>3</u> /:	49.9	49.9	47.9
1/8" " -----" " " :	34.5	33.5	34.2
Nonlint content: <u>4</u> /			
Visible waste-----percent:	1.4	1.1	1.8
Invisible waste-----" :	0.5	0.6	0.9
Total nonlint content-----" :	1.9	1.7	2.7
Color of raw cotton: <u>5</u> /			
Reflectance-----Rd:	71.1	70.0	69.5
Yellowness-----+b:	10.2	11.1	10.2
Sugar content-----percent:	0.2	0.3	0.0
Acid-alkaline value-----pH units <u>6</u> /:	6.7	6.7	6.8
PROCESSING RESULTS			
Manufacturing waste:			
Picker and card-----percent:	9.0	10.4	9.3
Comber-----" :	13.7	13.9	14.0
Neps-----per 100 sq. in. of card web:	9	14	14
Yarn skein strength:			
50s (11.8 tex)-----pounds:	72	70	70
80s (7.4 ")-----" :	40	39	38
Average break factor----- <u>7</u> /:	3400	3310	3270
Yarn appearance:			
50s (11.8 tex)-----grade:	B+	B+	B+
80s (7.4 ")-----" :	B+	B	B
Average yarn appearance-----index <u>8</u> /:	120	115	115

For footnotes see back page.

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FOOTNOTES

- 1/ Fiber fineness and maturity in combination as measured on untreated samples using the curvilinear scale for upland cotton.
- 2/ Fineness and maturity as determined by the Causticaire method using the Micronaire instrument.
- 3/ Tex is the universal unit for designating linear density of textile materials as adopted by the International Standards Organization (ISO). A tex unit equals the weight in grams of 1,000 meters of the material.
- 4/ As determined by means of the Shirley Analyzer.
- 5/ Determined by the Nickerson-Hunter Colorimeter on raw stock. Rd values indicate percent reflectance from 0 to 100 and +b values indicate degree of yellowness.
- 6/ Values below 7.0 indicate acidity. Values above 7.0 indicate alkalinity which when associated with abnormally low sugar content may indicate fiber degradation due to weathering or from the action of micro-organisms.
- 7/ Based on yarn skein strength (number x strength) of the two yarn numbers spun.
- 8/ Based on two numbers spun. Index of average quality equals 100.